

REMARKS

Claims 1-30 were cancelled previously. Claims 31-61 are pending examination. Claim 49 is amended. No new matter is added by virtue of the within amendment; support therefore can be found at least at page 9, beginning on line 17, and in Figure 1. Reconsideration of the application, as amended, is requested in view of the remarks which follow.

Claims 49-52 are rejected under 35 USC §112, 2nd paragraph. It is alleged that claim 49 is unclear as to how the "lid portion for covering a container" relates to the other components of the receiving element. With reference to parent claim 38, the Office Action asserts that it is unclear how the container fits in with the receiving surface.

By way of explanation, claim 49 relates to the embodiment of Fig. 1. As shown in Fig. 1, the receptacle comprises a lid portion 2, a support 3 and the adhesive agent 4. The receptacle in this embodiment is formed as a lid portion and is designed to cover a container, more particularly, a cell culture dish (e.g., a Petri dish). The dish/container itself is not a feature of the receiving element. Rather, the receiving element is suitably put on the dish/container to cover it after the specimen has been received.

Applicant has amended claim 49 in an effort to clarify the features of the invention as described. Reconsideration and withdrawal of the rejection under 35 USC §112, 2nd paragraph, is requested.

The remaining rejections are summarized and discussed in combination for the sake of brevity.

Claims 31-40, 42-47, 49 and 51-61 are rejected under 35 USC §103(a) over Schutze et al. (US 5,998,129) in view of Liotta et al. (US 6,251,467).

Claims 31-61 are rejected under 35 USC §103(a) over Schutze et al. and Liotta et al., and further in view of Walthall et al. (US 4,902,295), Akiyoshi et al. (US 4,870,005), Caldwell et al. (US 6,284,503), and Oldenburg et al. (US 6,027,695).

The rejections are respectfully traversed.

Schutze, discussed at page 3 of the Office Action, describes the laser pressure catapulting, i.e. the cutting out and catapulting of a biological specimen by means of a laser, developed by one of the inventors of the present application. The Schutze reference cited corresponds to WO 97/29355 A, which publication is mentioned at page 1 of the present application.

Schutze describes a method to extract a region of interest of a biological specimen using laser radiation. Liotta describes an alternative way of extracting a region of interest, from a biological specimen. In particular, Liotta describes using an adhesive for extracting a tissue sample.

Regarding Liotta, in a first embodiment described with reference to Figs. 1 and 2, a tip of a tool is covered with an adhesive 6, the adhesive is brought in contact with the region of interest (B in Fig. 2), and when the tool with the adhesive is retracted the region of interest is extracted from the remaining specimen (see for example column 5, line 44 to column 6, line 45 of Liotta).

In a different embodiment described with reference to Fig. 8, an activatable adhesive layer 32 is used. The adhesive layer is activated locally at a portion where it touches the above-mentioned region of interest, such that the activatable adhesive layer appears only in the region of interest to the tissue. Then the adhesive layer as shown in Fig. 80 is removed, taking the region of interest with it.

As indicated, Liotta describes a method for extracting a region of interest using an adhesive. As such, Liotta describes an alternative way of extracting a region of

interest of a specimen. These ways are mutually exclusive, i.e. either the specimen is excised using a laser or it is excised using an adhesive. Applicant submits therefore that one skilled in the art would choose *one* of these ways of extracting a specimen, but would not be motivated to combine the references.

In that respect, it is noted that the present claims are directed at receiving an element detached from a biological mass by laser radiation, i.e. exclude the methods of Liotta.

Applicant also respectfully submits that the interpretation of Liotta is not accurate.

For example, while Liotta mentions agarose, the agarose in Liotta is not the activatable adhesive layer as suggested in the Office Action. Instead, agarose is used in Liotta as a base material for slides on which the complete specimen is placed before dissection, and the region of interest is transferred from adhering to the agarose layer to adhering to the (activatable) adhesive layer (see column 4, lines 46-49, column 6, lines 4-8, and column 8, lines 30-56).

Therefore, in contrast to the present invention, the extracted specimen does not remain on the agarose, but instead is removed from the agarose in Liotta.

Also, regarding present claims 31-33 or 34, while infrared absorbing dyes can be included in the activatable adhesive layer, these cannot be considered agents for processing, as clearly the selection of the specimen to be processed is performed by laser radiation in the present claims, and the agents within the adhesive agent are set free only after dissolving the adhesive agent to perform the processing after selection in the present invention. These agents are agents for processing after the selection of the specimen to be processed (by laser radiation), as is apparent from present claim 57.

Further, present claim 37 recites that the adhesive agent is designed such that it may receive agents for further processing or analysis of the specimen. In contrast, in the rejection of present claim 37 as well as claims 40 , 42 and 43 the Office Action refers to portions of Liotta which disclose adding agents to the tissue and not to the adhesive agent. Furthermore, as explained above, the identification of agarose with the adhesive agent is faulty as the specimen to be observed or processed in Liotta is removed from the agarose.

The adhesive agent according to the present invention and its function with respect to the receiving element are amply described in the specification, e.g., at page 7, beginning on line 24. In particular, the adhesive agent suppresses the occurrence of electrostatic forces acting on the specimen in the receiving element. Additionally, the adhesive agent may be dissolved without damaging the specimen; for example, it may be liquefied by use of heat. Still further, the adhesive agent in the present invention may accommodate agents for further processing and/or analysis of the specimen. In a preferred embodiment, the adhesive agent is a hydrogel.

To properly determine a *prima facie* case of obviousness, the Examiner “must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made.” M.P.E.P. § 2142. This is important as “impermissible hindsight must be avoided and the legal conclusion must be gleaned from the prior art.” *Id.* Four factual inquiries must be made: first, a determination of the scope and contents of the prior art; second, a determination of the differences between the prior art and the claims in issue; third, a determination of level of ordinary skill in the pertinent art; and fourth, an evaluation of evidence of secondary consideration. *Graham v. John Deere*, 383 U.S. 1, 17-18, 148 U.S.P.Q. 459, 467 (1966).

Three criteria may be helpful in determining whether claimed subject matter is obvious under §103(a): first, if there is some suggestion or motivation to modify or combine the cited references; second, if there is a reasonable expectation of success; and third, if the prior art references teach or suggest all the claim limitations. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). With regard to the first criterion, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.3d 690 (Fed. Cir. 1990). "Knowledge in the prior art of every element of a patent claim ... is not of itself sufficient to render claim obvious." *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1333-34 (Fed. Cir. 2002). The issue is whether there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR*.

There is no motivation to combine the teachings of the primary references, Schutze and Liotta. As discussed above, they present alternative (mutually exclusive) methods of extracting a region of interest of a specimen. There can be no expectation of success in that regard, nor a sufficient teaching or suggestion of the features of the invention to sustain the rejection.

Moreover, Walthall, Akiyoshi, Caldwell and Oldenburg cannot remedy the deficiencies of Schutze and Liotta. As discussed at page 6 of the Office Action, Walthall is added for its disclosure that agarose polymers can be dissolved by treatment with an agarase solution. Akiyoshi is cited for teaching an adhesive layer that can be comprised of agarose or polyacrylamide. Caldwell is added for teaching that collagen can adhere to many cell types. Oldenburg is cited for teaching that microtiter plates can be formed from a highly reflective material such as acrylic so as to enhance the performance of the plate when used for measuring luminescence.

Even *if* such teachings are provided by these various references, the defects and lack of motivation to combine Schutze and Liotta are paramount. The cited references, even in the stated combinations, are insufficient to sustain the rejections under §103(a).

In view of the foregoing, reconsideration and withdrawal of the rejections under 35 USC §103(a) are respectfully requested.

CONCLUSION

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance.

If a telephone conference would be useful in expediting prosecution of the application, Applicant invites the Examiner to call the undersigned Attorney at the telephone number indicated below.

PETITION FOR EXTENSION AND FEE AUTHORIZATION

Applicant requests a one-month extension of time for filing the within response. The Commissioner is authorized to charge the fee for the extension and for any other fees required in connection with this submission to our Deposit Account, No. 04-1105, Reference 65752 (45107). Any overpayments should be credited to said Deposit Account.

Application No. 10/582,832
Amendment dated October 20, 2009
Reply to Office Action of June 22, 2009

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Docket No.: 65752(45107)

Dated: October 20, 2009

Respectfully submitted,

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